



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

19

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/864,053

05/23/2001

Volkhard Maess

P99,0687 02

3025

26574

7590

12/22/2004

SCHIFF HARDIN, LLP
PATENT DEPARTMENT
6600 SEARS TOWER
CHICAGO, IL 60606-6473

EXAMINER

BRASE, SANDRA L

ART UNIT

PAPER NUMBER

2852

DATE MAILED: 12/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/864,053

Applicant(s)

MAESS ET AL.

Examiner

Sandra L. Brase

Art Unit

2852

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 15-30 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 15-30 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>11/15/04</u> | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Objections

1. Claims 15-30 are objected to because of the following informalities. Appropriate correction is required.

On line 19 of claim 15, “with few manual operations” is considered to be indefinite and should be deleted.

On line 24 of claim 15, change “at least one of a front surface and a back surface” to “the front surface”. (Note: on lines 11-14 of claim 15, it is claimed that the images are transferred onto the front surface).

On line 3 of claim 18, “an” should be changed to “a” and “additional” (both occurrences) should be changed to “further”.

On line 4 of claim 18, “additional” (both occurrences) should be changed to “further”.

On line 11 of claim 21, “additional print” should be changed to “further print”.

On line 2 of claim 22, “the first module” should be changed to “the module”.

On line 5 of claim 22, “the first transfer apparatus” should be changed to “the transfer apparatus”.

On line 4 of claim 23, “back” should be changed to “front”.

On line 4 of claim 23, “the second transfer apparatus” should be changed to “the transfer apparatus”.

Art Unit: 2852

On line 3 of claim 24, "back" should be changed to "front" since claim 15, upon which claim 24 depends specifies that the additional toner image is transferred onto the front surface and not the back.

On lines 3-4 of claim 24, "the second transfer apparatus" should be changed to "the transfer apparatus".

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 15-19, 22-24, 27 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Umeda et al. (US 5,848,323) in view of Ishikawa (US 5,552,857).

Art Unit: 2852

5. Umeda et al. (...323) disclose an electrophotographic printer for printing a final image carrier, comprising: a transport system operable to transport the final image carrier (110) (figure 6A); a first photoconductor and an additional photoconductor (col. 10, lines 25-34); a first print unit in contact with the first photoconductor and operable to produce a first toner image by a first arrangement of colored particles (col. 10, lines 45-49) on the first photoconductor (col. 10, lines 27-28); an additional print unit in contact with the additional photoconductor (col. 10, lines 27-29) to produce an additional toner image by an additional arrangement of colored particles on the additional photoconductor (col. 10, lines 45-49); and a transfer apparatus operable to transfer the first toner image from the first photoconductor and the additional toner image from the additional photoconductor onto a surface segment on a front side of the final image carrier (col. 10, line 63 – col. 11, line 2). The first print unit and the additional print unit both contain two colors (col. 10, lines 45-49). A single fixing unit is associated with the final image carrier to fix the toner images on the front surface (col. 7, lines 32-52). The transfer apparatus is a first transfer apparatus, and includes a first transfer unit allocated to the first print unit which transfers the first segment on the front surface of the final image carrier; and an additional transfer unit allocated to the additional print unit which transfers the additional toner image directly from the additional photoconductor onto the surface segment on the front surface of the final image carrier (col. 10, line 63 – col. 11, line 2). The printer further comprising: a further photoconductor (col. 10, lines 35-41); a further print unit for production of a further toner image by a further arrangement of colored particles on the further photoconductor (col. 10, lines 45-49); and a second transfer apparatus for transfer of the further toner image from the further photoconductor onto a surface segment on the back surface of the final image carrier (col. 10, line 63 – col. 11, line 2). The

Art Unit: 2852

second transfer apparatus includes: a further transfer unit allocated to the further print unit which transfers the further toner image directly from the further photoconductor onto the surface segment on the back surface of the final image carrier (col. 10, line 63 – col. 11, line 2). The first print unit produces a third toner image after the application of the first toner image and before the application of the additional toner image, where the third toner image is transferred onto the surface segment on the front surface by the transfer apparatus (col. 10, line 63 – col. 11, line 2). The additional print unit produces a toner image after the application of the additional toner image that is transferred onto the surface segment on the front surface by the transfer apparatus (col. 10, line 63 – col. 11, line 2). The first and additional print units each include a charge apparatus (103a and 103c) arranged near the photoconductor for production of an electrical charge of the photoconductor; an exposure apparatus for one-time exposure according to an image of the photoconductor per toner image (figure 6A); a first developer station (107a and 107c) for application of colored particles of a first color with a selected polarity onto an allocated first surface element of the photoconductor; and an additional developer station (107b and 107d) for application of colored particles of a further color with the selected polarity onto a further surface element of the photoconductor. The photoconductor includes an electrode layer that conducts a predetermined potential and a photoconductor layer arranged approximately parallel thereto (col. 10, lines 29-34). However, Umeda et al. (...323) do not disclose the claimed modules for receiving the claimed print units. Ishikawa (...857) discloses modules for receiving print units, where each are removably contained in a corresponding receptacle, each having the same construction (col. 5, line 31 – col. 6, line 12; and figures 1 and 7), where such modules are placed where print units are provided. It would have been obvious to one of

Art Unit: 2852

ordinary skill in the art at the time of the invention to have the claimed modules located at both sides of the final image carrier, since such modules, as disclosed by Ishikawa (...857), are well known in the art to hold print units in a removably mounted fashion for ease in mounting and replacement.

6. Claims 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Umeda et al. (US 5,848,323) in view of Ishikawa (US 5,552,857) as applied to claim 15 above, and further in view of DeBock et al. (US 5,805,967).

7. Umeda et al. (...323) in view of Ishikawa (...857) disclose the features mentioned previously, but do not disclose the use of intermediate carriers for image transfer. DeBock et al. (...967) disclose a printing apparatus including a first transfer device including a first intermediate carrier (146) for transferring images from the surface of a first set of photoconductors to one side of a final image carrier (col. 14, lines 4-14 – col. 15, lines 11-19), and a second transfer device including a second intermediate carrier (148) for transferring images from the surface of a second set of photoconductors to the other side of a final image carrier (col. 14, line 61 – col. 15, line 6; and col. 15, lines 11-19). It would have been obvious to one of ordinary skill in the art at the time of the invention to use intermediate carriers, as disclosed by Debock et al. (...967) for image transfer since the use of such is notoriously well known in the art for use in a transfer device to transfer color images onto a final image carrier.

Art Unit: 2852

8. Claims 25 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Umeda et al. (US 5,848,323) in view of Ishikawa (US 5,552,857) as applied to claim 15 above, and further in view of Richmond et al. (US 5,204,730).

9. Umeda et al. (...323) in view of Ishikawa (...857) disclose the features mentioned previously, but do not disclose each print unit including three developer stations forming toner images of three colors. Richmond et al. (...730) disclose a print unit including three developer stations so as to form toner images of three colors (col. 3, line 68 – col. 4, line 62). It would have been obvious to one of ordinary skill in the art the time of the invention to have the claimed three developer stations, as disclosed by Richmond et al. (...730) since it is well known in the art to provide three developer stations in a print unit so as to form three different color toner images.

10. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Umeda et al. (US 5,848,323) in view of Ishikawa (US 5,552,857) as applied to claim 15 above, and further in view of Kaneyama (US 5,937,246).

11. Umeda et al. (...323) in view of Ishikawa (...857) disclose the features mentioned previously, but do not disclose the claimed print control unit. Kaneyama (...246) discloses a printer including a print control unit operable to select colors from a color palette with a large number of predetermined colors, where a developer station is allocated to each of the individual colors of the color palette, and the print control unit activates the developer stations for the application of the selected colors, where a developer station can be in an idle state during printing when it is not to apply any colored particles (col. 4, line 6 – col. 5, line 44; col. 7, line 18 – col. 8, line 3; and col. 12, lines 4-55). It would have been obvious to one of ordinary skill in

Art Unit: 2852

the art at the time of the invention to have a print control unit, as disclosed by Kaneyama (...246), so as to control the color printing operation so as to achieve desired color images.

12. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Umeda et al. (US 5,848,323) in view of Ishikawa (US 5,552,857) as applied to claim 15 above, and further in view of Haneda (US 5,752,137).

13. Umeda et al. (...323) in view of Ishikawa (...857) disclose the features mentioned previously, but do not disclose a developer station placed removably into the print units. Haneda (...137) discloses a print unit in which developer stations are detachably attached therein (col. 17, line 61 – col. 18, line 19; and figure 19). It would have been obvious to one of ordinary skill in the art at the time of the invention to have a developer station that is removably placed into a print unit, as disclosed by Haneda (...137), so that maintenance of the developer station can be carried out.

Prior Art

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

15. Applicant cited, in an IDS filed 11/15/04, previously submitted 892s (notice of references cited by Examiner) for application serial no. 09/284,769, these references are placed on a new 892 corresponding to this application; and also, the 1449 cited by applicant from 09/284,769, is being re-labeled to correspond to the present application.

Art Unit: 2852

Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sandra L. Brase whose telephone number is (571) 272-2131. The examiner can normally be reached on Monday-Thursday and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Arthur T. Grimley, can be reached on (571) 272-2136. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Sandra L. Brase
Primary Examiner
Art Unit 2852

December 20, 2004